

**Commonwealth of Kentucky  
Environmental and Public Protection Cabinet  
Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane  
Frankfort, Kentucky 40601  
(502) 573-3382**

**AIR QUALITY PERMIT  
Issued under 401 KAR 52:040**

**Permittee Name:** Hausner Hard-Chrome of Kentucky

**Mailing Address:** 3094 Medley Road  
Owensboro, KY 42301

**Source Name:** Same as above  
**Mailing Address:** Same as above

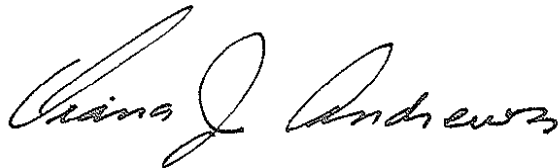
**Source Location:** Same as above

**Permit Number:** S-06-338  
**Source A. I. #:** 911  
**Activity #:** APE20060001  
**Review Type:** State Origin  
**Source ID #:** 21-059-00158

**Regional Office:** Owensboro Regional Office  
3032 Alvey Park Dr. W., Suite 700  
Owensboro, KY 42303-2191

**County:** Daviess

**Application**  
**Complete Date:** October 17, 2006  
**Issuance Date:** January 8, 2007  
**Revision Date:**  
**Expiration Date:** January 6, 2017



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**John S. Lyons, Director  
Division for Air Quality**

## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

<b>EP1 (Tank1)</b>	<b>Hard Chromium Electroplating</b>
<b>EP2 (Tanks 2, 3 and 4)</b>	<b>Hard Chromium Electroplating</b>
<b>EP3 (Tanks 5, 7, 9 and 10)</b>	<b>Hard Chromium Electroplating</b>
<b>EP4 (Tank 8)</b>	<b>Hard Chromium Electroplating</b>

Note: 1. All plating tanks described above are exhausted to a Composite Mesh Pad Fume Scrubber and the removal efficiency is 99%.

**Description:**

Nine hard chromium-electroplating tanks. The emissions from all nine tanks are routed to four different control equipment.

*Chemicals Used:* Chromic Acid, Sulfuric Acid and Barium Carbonate.

*Installation Dates:* 1985,1986,1990 and 2006.

*Control Equipment:* Composite Mesh Pad Fume Scrubbers. Installed in 1997.

**APPLICABLE REGULATIONS**

- a. 40 CFR 63 Subpart N - National Emission Standards for Hazardous Air Pollutants from Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.
- b. 401 KAR 59:010, New process operations which commenced on or after July 2, 1975

**1. Operating Limitations:**

- a. Pursuant to 40 CFR 63 Subpart N, §63.342(f)(1):
  - i. At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices, and the operation and maintenance plan.
  - ii. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
  - iii. Operation and maintenance requirements established are enforceable independent of emissions limitations or other requirements in relevant standards.
- b. Pursuant to §63.342 (f)(3), the owner or operator of an affected source subject to paragraph (f) of this section shall prepare an operation and maintenance plan no later than the compliance date.

**2. Emission Limitations:**

- a. 401 KAR 59:010, Section 3(2):

Particulate Matter (PM) emissions from the control equipment or stack from each tank into the open air shall not exceed the limit (lbs/hr) calculated using the following formula:

$$Limit = 3.59P^{0.62}$$

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

Where,  $P$  = Process Weight = Total weight (tons/hr) of all materials introduced into a tank which may cause PM emissions. If the process weight for a particular tank equals to or less than 0.5 ton/hour, the PM emissions limitation shall be 2.34 lbs/hr.

Compliance Demonstration Method:

For each month and each tank,

$$\text{PM emissions (lbs/hr)} = [W \times EF \times (1 - OCE / 100)] / H$$

Where,

- $W$  = Total monthly weight of all chemicals used (tons/month)
- $EF$  = Emission factor = 299 (lbs/ton)
- $OCE$  = Overall control efficiency (%) = Capture efficiency (%) x control equipment's control efficiency (%)
- $H$  = Total monthly hours of operation (hours/month)

b. *401 KAR 59:010, Section 3(1):*

Visible emissions into the open air from a control device or stack shall not equal or exceed 20 percent opacity.

Compliance Demonstration Method:

- i. Once per month, the permittee shall perform a qualitative visual observation of emissions from each stack/vent while the emission units are in operation and maintain a log of the observation.
- ii. If visible emissions are observed or if requested by the Division, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the monthly log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and the date of certification.

c. Pursuant to 40 CFR 63 Subpart N, §63.342 (c)(1)(ii):

The total chromium emissions in the exhaust gas stream discharged to the atmosphere shall not exceed 0.03 milligrams per dry standard cubic meter (mg/dscm) or  $1.3 \times 10^{-5}$  gr/dscf.

- The emission limitation shall apply during tank operation as well as during periods of startup and shutdown, but not during periods of malfunction. However, the work practice standards that address operation and maintenance must be followed during malfunctions.

Compliance Demonstration Method:

To demonstrate continuous compliance, the control equipment shall be operated within  $\pm 2$  inches of water column of the pressure drop value established during the

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.

**3. Testing Requirements:**

- a. 40 CFR 63 Subpart N, §63.343:  
The permittee shall conduct an initial performance test as required under 40 CFR §63.7. For composite mesh-pad system, during the initial performance test, the permittee shall determine the outlet chromium concentration using the test methods and procedures in 40 CFR §63.344(c), and shall establish as a site-specific operating parameter the pressure drop across the system, setting the value that corresponds to compliance with the applicable emission limitation, using the procedures in 40 CFR §63.344(d)(5). The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values, or may set the compliant value as the average pressure drop measured over the three test runs of one performance test and accept  $\pm 2$  inches of water column from this value as the compliant range.
- b. In the absence of a representative engineering estimate, the permittee shall conduct a test to determine the capture efficiency of the capture system.

**4. Monitoring Requirements:**

The permittee shall monitor:

- a. *Daily* – Pressure drop across the control equipment when any tank is operating. [40 CFR 63 Subpart N, §63.343].
- b. *Quarterly* – Air pollution control device and monitoring equipment [40 CFR 63 Subpart N, §63.343].
- c. PM emissions, monthly hours of operation, and monthly raw material usage.

**5. Recordkeeping Requirements:**

The permittee shall record:

- a. *Daily* – Pressure drop across the control equipment when any tank is operating, including the date and time the data are collected. [40 CFR 63 Subpart N, §63.343].
- b. *Monthly* – PM emissions calculation (lbs/hr), hours of operation, individual and total chemical usage (tons/month).
- c. *All times* – All chemical MSDS.
- d. 40 CFR 63 Subpart N, §63.342(f)(3) and §63.346 (b):
  - i. The permittee shall keep the written operation and maintenance plan on record after it is developed and it is to be made available for inspection, upon request, by the Division for the life of the affected source or until the source is no longer subject to the provisions of 40 CFR 63 Subpart N. In addition, if the operation and maintenance plan is revised, the permittee shall keep previous (i.e. superceded) versions of the operation and maintenance plan on record and it is to be made available for inspection, upon request, by the Division for a period of 5 years after each revision to the plan.
  - ii. Inspection records for the air pollution control device and monitoring equipment. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- the inspection, and any actions taken to correct deficiencies found during the inspection.
- iii. Records of all maintenance performed on the tanks (affected sources), the air pollution control device, and monitoring equipments.
  - iv. Records of the occurrence, duration, and cause (if known) of each process, air pollution control device, or monitoring equipment malfunction.
  - v. Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.
  - vi. Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by §63.342(f)(3).
  - vii. Test reports documenting results of all performance tests.
  - viii. The specific identification (i.e. the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during process, air pollution control device, or monitoring equipment malfunction.
  - ix. The specific identification (i.e. the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than process, air pollution control device, or monitoring equipment malfunction.
  - x. The total process operating time of the affected source during the reporting period.
  - xi. All records shall be maintained on-site for a period of 5 years.
- e. Refer to Section C for general record keeping requirements.

**6. Reporting Requirements:**

- a. 40 CFR 63 Subpart N, §63.342:

The permittee shall report to the field office any actions, mentioned in 5(d)(v) above within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the Division.

- b. The permittee shall submit records specified in 5. Recordkeeping Requirements above semiannually.
- c. Refer to Section C for general reporting requirements.

**7. Control Equipment Operating Conditions:**

The control equipment shall be operated:

- a. Within  $\pm 2$  inches of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance test.
- b. According to the manufacturer's specifications.

## **SECTION C - GENERAL CONDITIONS**

### **A. Administrative Requirements**

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15]
3. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Material incorporated by reference by 401 KAR 52:040, Section 1a, 11].
4. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition [Material incorporated by reference by 401 KAR 52:040, Section 1a, 4,5].
5. This permit does not convey property rights or exclusive privileges [Material incorporated by reference by 401 KAR 52:040, Section 1a, 8].
6. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:040 Section 11(3)].
7. This permit shall be subject to suspension at any time the permittee fails to pay all fees within 90 days after notification as specified in 401 KAR 50:038, Air emissions fee. The permittee shall submit an annual emissions certification pursuant to 401 KAR 52:040, Section 20.
8. All previously issued permits to this source at this location are hereby null and void.

### **B. Recordkeeping Requirements**

1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:040 Section 3(1)(f)].
2. The permittee shall perform compliance certification and recordkeeping sufficient to assure

**SECTION C - GENERAL CONDITIONS (CONTINUED)**

compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

**C. Reporting Requirements**

1. a. In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- b. The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition 1. a. above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report [Material incorporated by reference by 401 KAR 52:040, Section 5, 3].
2. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the permit [Material incorporated by reference by 401 KAR 52:040, Section 1a, 6].
3. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The summary reports are due January 30th and July 30th of each year. All deviations from permit requirements shall be clearly identified in the reports. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

**D. Inspections**

1. In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency:



## **SECTION C - GENERAL CONDITIONS (CONTINUED)**

- a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation.
- b. To access and copy any records required by the permit.
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.
- d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

### **E. Emergencies/Enforcement Provisions**

1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Material incorporated by reference by 401 KAR 52:040, Section 1a, 3].
2. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
3. Emergency provisions listed in General Condition E.2 are in addition to any emergency or upset provision contained in an applicable requirement [401 KAR 52:040, Section 22(1)].
4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040, Section 22(2)].

### **F. Compliance**

1. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
  - a. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are

## SECTION C - GENERAL CONDITIONS (CONTINUED)

- designed is operated, except as provided by 401 KAR 50:055, Section 1.
- b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and nonroutine maintenance performed on each control device.
  - c. A log of the monthly raw material consumption and monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division [401 KAR 50:055, Section 2].
2. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
- a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period, and
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality	Division for Air Quality
Owensboro Regional Office	Central Files
3032 alvey Park Dr.W., Suite 700	803 Schenkel Lane
Owensboro, KY 42303-2191	Frankfort, KY 40601-1403
3. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:
- (a) Applicable requirements that are included and specifically identified in this permit; or
  - (b) Non-applicable requirements expressly identified in this permit [401 KAR 52:040, Section 11].

**SECTION D - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:040, Section 6. While these activities are designated as insignificant the permittee shall comply with the applicable regulation and any level of periodic monitoring specified below.

Activity	Applicable Regulations
1. Hydraulic Oil- Machine Shop (4-55 gallon drums)	None
2. Protective Lubricant Oil Shipping Dept. (1-55 gallon drum)	None
3. Space Heater- mounted Natural Gas (26 total) (60,000 BTU/Each)	None
4. Media Blasting (Sandblast Area)	401 KAR 59:010
5. Machine Shop Area	401 KAR 59:010
6. Strip Tank	40 CFR 63 Subpart N
7. Six Reclaim Tanks	None
8. Welding Station	401 KAR 59:010
9. Two Rinse Tanks	None
11. Wash Pit	None
12. Tank 0	40 CFR 63 Subpart N
13. Polishing Department	401 KAR 59:010